

IN THE CLAIMS

Please amend claims 12, 15-19, and 21 and add claim 28 as follows.

1. (Withdrawn) An image forming apparatus which includes image input means for scanning an original and converting a scanned image into image data, image output means for printing an image on a recording paper based on the image data converted by said image input means, and image repeat means for performing an image repeat process to cause said image output means to form a plurality of a part or all of the image data on one recording paper, comprising:

margin adding means for adding a margin between the plural formed images when the image repeat process is performed by said image repeat means.

2. (Withdrawn) An image forming apparatus according to Claim 1, further comprising setting means capable of selecting and setting whether or not to use said margin adding means when the image repeat process is performed by said image repeat means.

3. (Withdrawn) An image forming apparatus according to Claim 2, wherein said setting means is provided on an operation unit which is used for user's operations and displays of various operation states.

4. (Withdrawn) An image forming apparatus according to Claim 2, further comprising judgment means for judging whether or not to perform the image repeat process to the part or all

of the image data converted by said image input means, when the image repeat process is performed by said image repeat means.

5. (Withdrawn) An image forming apparatus according to Claim 4, further comprising image size determination means for determining a size of the image to which the image repeat process is performed, when it is judged by said judgment means that the image repeat process is performed to the part of the image data converted by said image input means.

6. (Withdrawn) An image forming apparatus according to Claim 2, wherein said image repeat means performs the image repeat process in each of a longitudinal and a lateral direction on a same face of the one recording paper.

7. (Withdrawn) An image forming apparatus according to Claim 6, further comprising repeat number designation means for designating the number of times of the image repeat process in each of the longitudinal direction and the lateral direction,

wherein said image repeat means performs the image repeat process according to the number of times designated by said repeat number designation means.

8. (Withdrawn) An image forming apparatus according to Claim 6, further comprising repeat number determination means for determining a size of the image to which the image repeat process is performed and designating the number of times of the image repeat process in

each of the longitudinal direction and the lateral direction on the same face of the one recording paper,

wherein said image repeat means performs the image repeat process according to the number of times determined by said repeat number determination means.

9. (Withdrawn) An image repeat method in an image forming apparatus which includes an image input means for scanning an original and converting a scanned image into image data, an image output means for printing an image on a recording paper based on the image data converted by the image input means, and an image repeat means for performing an image repeat process to cause the image output means to form a plurality of a part or all of the image data on one recording paper, said method comprising:

a setting step capable of selecting and setting whether or not to add a margin between the plural image-repeated images when the image repeat process is performed by the image repeat means; and

a margin adding step of adding the margin between the plural formed images when the image repeat process is performed by the image repeat means, in a case where it is selected and set in said setting step to add the margin between the plural image-repeated images.

10. (Withdrawn) A program which is to execute an image repeat method in an image forming apparatus which includes an image input means for scanning an original and converting a scanned image into image data, an image output means for printing an image on a recording paper based on the image data converted by the image input means, and an image repeat means

for performing an image repeat process to cause the image output means to form a plurality of a part or all of the image data on one recording paper, said method comprising:

a setting step capable of selecting and setting whether or not to add a margin between the plural image-repeated images when the image repeat process is performed by the image repeat means; and

a margin adding step of adding the margin between the plural formed images when the image repeat process is performed by the image repeat means, in a case where it is selected and set in said setting step to add the margin between the plural image-repeated images.

11. (Withdrawn) A storage medium which computer-readably stores a program to execute an image repeat method in an image forming apparatus which includes an image input means for scanning an original and converting a scanned image into image data, an image output means for printing an image on a recording paper based on the image data converted by the image input means, and an image repeat means for performing an image repeat process to cause the image output means to form a plurality of a part or all of the image data on one recording paper, said method comprising:

a setting step capable of selecting and setting whether or not to add a margin between the plural image-repeated images when the image repeat process is performed by the image repeat means; and

a margin adding step of adding the margin between the plural formed images when the image repeat process is performed by the image repeat means, in a case where it is selected and

set in said setting step to add the margin between the plural image-repeated images.

12. (Currently Amended) An image forming apparatus which has an image repeat function capable of performing a layout process to arrange plural same data in a first direction and ~~also arrange data same as the plural same data~~ in a second direction on a same face of one recording paper, comprising:

a first accepting unit configured to accept, from a user, a number of the data arranged in the first direction independently of a number of the data arranged in the second direction;

a second accepting unit configured to accept, from a user, a number of the data arranged in the second direction independently of the number of the data arranged in the first direction;

a selecting unit configured to select, for each image forming job executed by the image forming apparatus, a first layout mode or a second layout mode, (1) the first layout mode being that, in the image repeat function, the mutually adjacent same data of the number accepted by said first accepting unit are arranged in the first direction with at least one interval, and ~~also~~ the mutually adjacent same data of the number accepted by said second accepting unit are arranged in the second direction with at least one interval, (2) the second layout mode being that, in the image repeat function, the mutually adjacent same data of the number accepted by said first accepting unit are arranged in the first direction without an interval, and ~~also~~ the mutually adjacent same data of the number accepted by said second accepting unit are arranged in the second direction without an interval; and

a controller configured to arrange the data of the number accepted by said first accepting unit in the first direction with at least one interval and arrange the data of the number accepted by

~~said second accepting unit in the second direction execute the first layout mode in the image repeat function~~ in a case where an image forming job executed by the image forming apparatus is an image forming job for which the first layout mode is selected by said selecting unit, and execute the second layout mode in the image repeat function arrange the data of the number accepted by said first accepting unit in the first direction without an interval and the data of the number accepted by said second accepting unit in the second direction without an interval in a case where an image forming job executed by the image forming apparatus is an image forming job for which the second layout mode is selected by said selecting unit.

13. (Cancelled)

14. (Withdrawn) An image forming apparatus which has an image repeat function capable of performing a layout process to arrange plural same data in a first direction on a same face of one recording paper and also arrange data same as the plural same data in a second direction on the same face of the one recording paper, comprising:

a display controller for causing a display unit to perform a first display operation of enabling to select either one of a first layout mode that, in the image repeat function, the mutually adjacent same data arranged in the first direction on the same face of the one recording paper are arranged with intervals added in the first direction, and also the mutually adjacent same data arranged in the second direction on the same face of the one recording paper are arranged with intervals added in the second direction, and a second layout mode that, in the image repeat function, the mutually adjacent same data arranged in the first direction on the same face of the

one recording paper are arranged without intervals in the first direction, and also the mutually adjacent same data arranged in the second direction on the same face of the one recording paper are arranged without intervals in the second direction; and

a controller for causing to execute the first layout mode in the image repeat function in a case where the first layout mode is selected through the first display operation, and causing to execute the second layout mode in the image repeat function in a case where the second layout mode is selected through the first display operation,

wherein said display controller causes said display unit to perform the first display operation, causes said display unit to perform a second display operation in the image repeat function for setting the number of the same data to be arranged in the first direction on the same face of the one recording paper, and causes said display unit to perform a third display operation in the image repeat function for setting the number of the same data to be arranged in the second direction on the same face of the one recording paper,

in the case where the first layout mode is selected through the first display operation, said controller causes to perform in the image repeat function the layout process to arrange with the intervals added the plural same data which are arranged in the first direction on the same face of the one recording paper and of which the number corresponds to the number of the data set through the second display operation, in the first direction, and to arrange with the intervals added the plural same data which are arranged in the second direction on the same face of the one recording paper and of which the number corresponds to the number of the data set through the third display operation, in the second direction, and

in the case where the second layout mode is selected through the first display operation, said controller causes to perform in the image repeat function the layout process to arrange without intervals the plural same data which are arranged in the first direction on the same face of the one recording paper and of which the number corresponds to the number of the data set through the second display operation, in the first direction, and to arrange without intervals the plural same data which are arranged in the second direction on the same face of the one recording paper and of which the number corresponds to the number of the data set through the third display operation, in the second direction.

15. (Currently Amended) A ~~layout method in~~ control method for controlling an image forming apparatus ~~and for which has~~ an image repeat function capable of performing a layout process to arrange plural same data in a first direction and ~~also arrange data same as the plural same data~~ in a second direction on a same face of one recording paper, said method comprising:

a first accepting step of accepting, from a user, a number of the data arranged in the first direction independently of a number of the data arranged in the second direction;

a second accepting step of accepting, from a user, a number of the data arranged in the second direction independently of the number of the data arranged in the first direction;

a selection step of selecting, for each image forming job executed by the image forming apparatus, a first layout mode or a second layout mode, (1) the first layout mode being that, in the image repeat function, the mutually adjacent same data of the number accepted in said first accepting step are arranged in the first direction with at least one interval, and ~~also~~ the mutually adjacent same data of the number accepted in said second accepting step are arranged in the

second direction with at least one interval, and (2) the second layout mode being that, in the image repeat function, the mutually adjacent same data of the number accepted in said first accepting step are arranged in the second direction without an interval, and also the mutually adjacent same data of the number accepted in said second accepting step are arranged in the second direction without an interval; and

a control step of ~~causing the image forming apparatus to execute the first layout mode in the image repeat function~~ arranging the data of the number accepted in said first accepting step in the first direction with at least one interval and arranging the data of the number accepted in said second accepting step in the second direction in a case where an image forming job executed by the image forming apparatus is an image forming job for which the first layout mode is selected in said selection step, and ~~causing to execute the second layout mode in the image repeat function~~ arranging the data of the number accepted in said first accepting step in the first direction without an interval and the data of the number accepted in said second accepting step in the second direction without an interval in a case where an image forming job executed by the image forming apparatus is an image forming job for which the second layout mode is selected in said selection step.

16. (Cancelled)

17. (Currently Amended) A layout control method according to Claim 15, wherein ~~the image forming apparatus is capable of printing either one of image data sent from a scanner and image data sent from a computer, and~~

said selection step enables selection of either one of the first layout mode and the second layout mode in the image repeat function through an operation unit of the image forming apparatus.

18. (Currently Amended) A layout control method according to Claim 15, wherein ~~the image forming apparatus is capable of printing image data sent from a computer, and said selection step enables selection of either one of the first layout mode and the second layout mode in the image repeat function through an operation unit of the computer.~~
the image forming apparatus is capable of printing based on either one of data sent from a scanner and data sent from a computer.

19. (Currently Amended) A layout control method according to Claim 15, wherein said selection step enables to select either one of the first layout mode and the second layout mode in the image repeat function through an operation unit of a computer.

20. (Cancelled)

21. (Currently Amended) A non-transitory computer readable medium storing a computer executable program to execute a layout method in an image forming apparatus and for an image repeat function capable of performing a layout process to arrange plural same data in a first direction and ~~also arrange data same as the plural same data~~ in a second direction on a same face of one recording paper, said method comprising:

a first accepting step of accepting, from a user, a number of the data arranged in the first direction independently of a number of the data arranged in the second direction;

a second accepting step of accepting, from a user, a number of the data arranged in the second direction independently of the number of the data arranged in the first direction;

a selection step of selecting, for each image forming job executed by the image forming apparatus, a first layout mode or a second layout mode, (1) the first layout mode being that, in the image repeat function, the mutually adjacent same data of the number accepted in said first accepting step are arranged in the first direction with at least one interval, and also the mutually adjacent same data of the number accepted in said second accepting step are arranged in the second direction with at least one interval, and (2) the second layout mode being that, in the image repeat function, the mutually adjacent same data of the number accepted in said first accepting step are arranged in the second direction without an interval, and also the mutually adjacent same data of the number accepted in said second accepting step are arranged in the second direction without an interval; and

a control step of ~~causing to execute the first layout mode in the image repeat function~~ arranging the data of the number accepted in said first accepting step in the first direction with at least one interval and arrange the data of the number accepted by said second accepting unit in the second direction in a case where an image forming job executed by the image forming apparatus is an image forming job for which the first layout mode is selected in said selection step, and ~~causing to execute the second layout mode in the image repeat function~~ arranging the data of the number accepted in said first accepting step in the first direction without an interval and the data of the number accepted in said second accepting step in the second direction without

an interval in a case where an image forming job executed by the image forming apparatus is an image forming job for which the second layout mode is selected in said selection step.

22. (Withdrawn) A layout method for an image repeat function capable of performing a layout process to arrange plural same data in a first direction on a same face of one recording paper and also arrange data same as the plural same data in a second direction on the same face of the one recording paper, comprising:

a display control step of causing a display unit to perform a first display operation of enabling to select either one of a first layout mode that, in the image repeat function, the mutually adjacent same data arranged in the first direction on the same face of the one recording paper are arranged with intervals added in the first direction, and also the mutually adjacent same data arranged in the second direction on the same face of the one recording paper are arranged with intervals added in the second direction, and a second layout mode that, in the image repeat function, the mutually adjacent same data arranged in the first direction on the same face of the one recording paper are arranged without intervals in the first direction, and also the mutually adjacent same data arranged in the second direction on the same face of the one recording paper are arranged without intervals in the second direction; and

a control step of causing to execute the first layout mode in the image repeat function in a case where the first layout mode is selected through the first display operation, and causing to execute the second layout mode in the image repeat function in a case where the second layout mode is selected through the first display operation,

wherein said display control step causes the display unit to perform the first display operation, causes the display unit to perform a second display operation in the image repeat function for setting the number of the same data to be arranged in the first direction on the same face of the one recording paper, and causes the display unit to perform a third display operation in the image repeat function for setting the number of the same data to be arranged in the second direction on the same face of the one recording paper,

in the case where the first layout mode is selected through the first display operation, said control step causes to perform in the image repeat function the layout process to arrange with the intervals added the plural same data which are arranged in the first direction on the same face of the one recording paper and of which the number corresponds to the number of the data set through the second display operation, in the first direction, and to arrange with the intervals added the plural same data which are arranged in the second direction on the same face of the one recording paper and of which the number corresponds to the number of the data set through the third display operation, in the second direction, and

in the case where the second layout mode is selected through the first display operation, said control step causes to perform in the image repeat function the layout process to arrange without intervals the plural same data which are arranged in the first direction on the same face of the one recording paper and of which the number corresponds to the number of the data set through the second display operation, in the first direction, and to arrange without intervals the plural same data which are arranged in the second direction on the same face of the one recording paper and of which the number corresponds to the number of the data set through the third display operation, in the second direction.

23. (Withdrawn) A layout method according to Claim 22, wherein

the layout process in the image repeat function can be performed by an image forming apparatus capable of printing either one of image data sent from a scanner and image data sent from a computer, and

said display control step causes a display unit of the image forming apparatus to perform the first display operation, perform the second display operation and perform the third display operation.

24. (Withdrawn) A layout method according to Claim 22, wherein

the layout process in the image repeat function can be performed by an image forming apparatus capable of printing at least any one of image data sent from a computer, and

said display control step causes a display unit of the computer to perform the first display operation, perform the second display operation and perform the third display operation.

25. (Withdrawn) A layout method according to Claim 22, wherein

the layout process in the image repeat function can be performed by a computer capable of outputting image data printable by an image forming apparatus, and

said display control step causes a display unit of the computer to perform the first display operation, perform the second display operation and perform the third display operation.
ration and perform the third display operation.

26. (Withdrawn) A program which is to execute a layout for an image repeat function capable of performing a layout process to arrange plural same data in a first direction on a same face of one recording paper and also arrange data same as the plural same data in a second direction on the same face of the one recording paper, comprising:

a display control step of causing a display unit to perform a first display operation of enabling to select either one of a first layout mode that, in the image repeat function, the mutually adjacent same data arranged in the first direction on the same face of the one recording paper are arranged with intervals added in the first direction, and also the mutually adjacent same data arranged in the second direction on the same face of the one recording paper are arranged with intervals added in the second direction, and a second layout mode that, in the image repeat function, the mutually adjacent same data arranged in the first direction on the same face of the one recording paper are arranged without intervals in the first direction, and also the mutually adjacent same data arranged in the second direction on the same face of the one recording paper are arranged without intervals in the second direction; and

a control step of causing to execute the first layout mode in the image repeat function in a case where the first layout mode is selected through the first display operation, and causing to execute the second layout mode in the image repeat function in a case where the second layout mode is selected through the first display operation,

wherein said display control step causes the display unit to perform the first display operation, causes the display unit to perform a second display operation in the image repeat function for setting the number of the same data to be arranged in the first direction on the same face of the one recording paper, and causes the display unit to perform a third display operation

in the image repeat function for setting the number of the same data to be arranged in the second direction on the same face of the one recording paper,

in the case where the first layout mode is selected through the first display operation, said control step causes to perform in the image repeat function the layout process to arrange with the intervals added the plural same data which are arranged in the first direction on the same face of the one recording paper and of which the number corresponds to the number of the data set through the second display operation, in the first direction, and to arrange with the intervals added the plural same data which are arranged in the second direction on the same face of the one recording paper and of which the number corresponds to the number of the data set through the third display operation, in the second direction, and

in the case where the second layout mode is selected through the first display operation, said control step causes to perform in the image repeat function the layout process to arrange without intervals the plural same data which are arranged in the first direction on the same face of the one recording paper and of which the number corresponds to the number of the data set through the second display operation, in the first direction, and to arrange without intervals the plural same data which are arranged in the second direction on the same face of the one recording paper and of which the number corresponds to the number of the data set through the third display operation, in the second direction.

27. (Withdrawn) A storage medium which computer-readably stores a program to execute a layout method for an image repeat function capable of performing a layout process to arrange plural same data in a first direction on a same face of one recording paper and also

arrange data same as the plural same data in a second direction on the same face of the one recording paper, comprising:

a display control step of causing a display unit to perform a first display operation of enabling to select either one of a first layout mode that, in the image repeat function, the mutually adjacent same data arranged in the first direction on the same face of the one recording paper are arranged with intervals added in the first direction, and also the mutually adjacent same data arranged in the second direction on the same face of the one recording paper are arranged with intervals added in the second direction, and a second layout mode that, in the image repeat function, the mutually adjacent same data arranged in the first direction on the same face of the one recording paper are arranged without intervals in the first direction, and also the mutually adjacent same data arranged in the second direction on the same face of the one recording paper are arranged without intervals in the second direction; and

a control step of causing to execute the first layout mode in the image repeat function in a case where the first layout mode is selected through the first display operation, and causing to execute the second layout mode in the image repeat function in a case where the second layout mode is selected through the first display operation,

wherein said display control step causes the display unit to perform the first display operation, causes the display unit to perform a second display operation in the image repeat function for setting the number of the same data to be arranged in the first direction on the same face of the one recording paper, and causes the display unit to perform a third display operation in the image repeat function for setting the number of the same data to be arranged in the second direction on the same face of the one recording paper,

in the case where the first layout mode is selected through the first display operation, said control step causes to perform in the image repeat function the layout process to arrange with the intervals added the plural same data which are arranged in the first direction on the same face of the one recording paper and of which the number corresponds to the number of the data set through the second display operation, in the first direction, and to arrange with the intervals added the plural same data which are arranged in the second direction on the same face of the one recording paper and of which the number corresponds to the number of the data set through the third display operation, in the second direction, and

in the case where the second layout mode is selected through the first display operation, said control step causes to perform in the image repeat function the layout process to arrange without intervals the plural same data which are arranged in the first direction on the same face of the one recording paper and of which the number corresponds to the number of the data set through the second display operation, in the first direction, and to arrange without intervals the plural same data which are arranged in the second direction on the same face of the one recording paper and of which the number corresponds to the number of the data set through the third display operation, in the second direction.

28. (New) An image forming apparatus which has an image repeat function capable of performing a layout process to arrange plural same data in a first direction and in a second direction on a same face of one recording paper, comprising:

a first accepting unit configured to accept, from a user, a number of the data arranged in the first direction independently of a number of the data arranged in the second direction;

a second accepting unit configured to accept, from a user, a number of the data arranged in the second direction independently of the number of the data arranged in the first direction;

a selecting unit configured to select, for each image forming job executed by the image forming apparatus, whether to make an interval between data and data; and

a controller configured to arrange the data of the number accepted by said first accepting unit in the first direction with at least one interval and arrange the data of the number accepted by said second accepting unit in the second direction in a case where an image forming job executed by the image forming apparatus is an image forming job for which said selecting unit select to make the interval between data and data, and arrange the data of the number accepted by said first accepting unit in the first direction without an interval and the data of the number accepted by said second accepting unit in the second direction without an interval in a case where an image forming job executed by the image forming apparatus is an image forming job for which said selecting unit select not to make the interval between data and data.